

Remarks/Arguments begin on page 3 of this paper.

REMARKS/ARGUMENTS

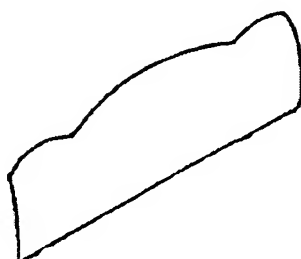
This Response to the Final Office Action, having a mailing date of May 14, 2007, is being filed on or before July 14, 2007 in order to i) respond to the Office Action's stated rejections, and ii) provoke an advisory action.

Claimed Rejections- 35 USC section 103

Regarding the 35 USC 103(a) rejections directed to claims 1-3 and 6-8 as being unpatentable over U.S. Patent number 5,361,433 to Vanzant in view of U.S. Patent number 6,113,188 to Stewart et al., Applicant responds as follows.

Front-Portion Shapes

The Office Action has alleged that Vanzant teaches, "a one-piece inflatable bladder (see Fig. 1) including a rectangular front portion." To show that this is not the case, Applicant has traced from Vanzant's Fig. 2 the, "front portion" taught therein. Although the Office Action has cited Fig. 1 in making the rejection, it appears that Fig. 2 teaches the same front-portion embodiment, but from a different perspective. This Fig. 2 teaching does not have the phantom lines describing a person (as in Fig. 1) and therefore provides a clearer illustration, for comparison purposes, of Vanzant's front-portion embodiment:



In order to contrast the Vanzant Fig. 2 "front portion" with a truly rectangular front portion, one of Applicant's rectangular front-portion embodiments is shown from the same perspective and position as the Vanzant "front portion." In the below comparison, Applicant's comparative rectangular front portion (as disclosed in applicant's specification) is positioned to the right of the Vanzant "front portion."



After studying the above comparison, Applicant argues that the Vanzant "front portion" is not rectangular. The Vanzant "front portion" has three curves or bumps, but Applicant's comparable rectangular "front section" doesn't have curves or bumps; instead, it has a respectively positioned straight line.

Side-Panel Shapes

The Office Action also alleges that Vanzant teaches first and second trapezoidal shaped side panels operatively connected to the front and rear portions. To show that this is not the case, Applicant has traced from Fig. 6a-6d each of the four side-panel embodiments taught by Vanzant:

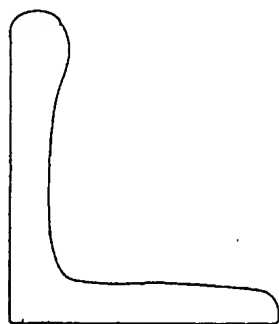


Fig. 6a

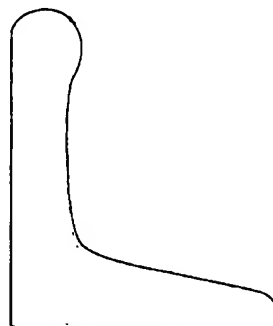


Fig. 6b

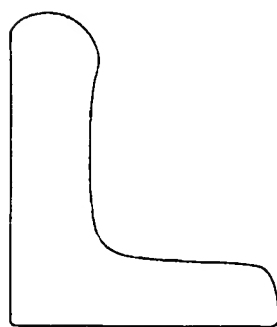


Fig. 6c

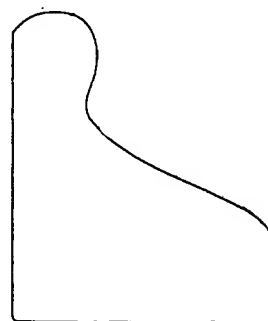
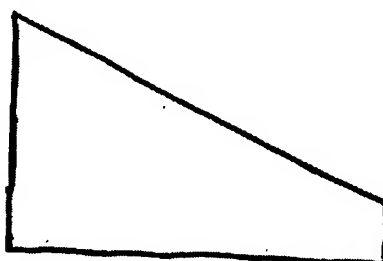


Fig. 6d

None of the above for Vanzant side panel tracings are trapezoidal. In comparison, a trapezoid is defined as a quadrilateral having two parallel sides, and one of Applicant's side panels, as disclosed in the specification, is provided below for comparison purposes:



For further clarification of an Office Action finding, it appears that the Office Action may have found that element 204 of Vanzant's Fig. 5b is a trapezoidal side panel. This is not the case. Vanzant teaches that the subject element 204 is not a side panel at all. Instead, it is taught as being an "open cell foam pad," or an "open cell foam" (column 6, lines 2-8).

Motivation for Combining Vanzant and Stewart et al.

The Office Action has found that Stewart et al. provides motivation for its combination with Vanzant because Stewart et al. teaches the existence of certain elements as part of its subject composition.

Such a finding is not motivation for the combination of Stewart et al. with another reference. The finding is merely a recitation of compositional elements, and as a matter of law, the mere recitation of compositional elements cannot serve as motivation for Stewart et al.'s combination with another reference:

It is to be noted, however, that citing references which merely indicate that isolated elements and/or features recited in the claims are known is not a sufficient basis for concluding that the combination of claimed elements would have been obvious, *Ex Parte Hiyamizu*, 10 USPQ 2d 1393, 1394-95 (B.P.A.I. 1988).

The Combination of Vanzant and Stewart et al.

Applicant maintains its previously presented position that a combination of the Vanzant and Stewart et al. teachings does not arrive at the claimed invention.

Rectangular Front Portion

Neither Vanzant nor Stewart et al. teach a one-piece inflatable bladder having a front portion, wherein the front portion is constructed to be rectangular. As can be seen from Applicant's above comparison between Vanzant's disclosed non-rectangular front portion and a truly rectangular front portion; Vanzant does not provide any rectangular front portion teachings.

Stewart et al. only provides teachings directed to a circular or cylindrical air chamber 16. Figure 5 provides such a teaching of inflatable air chamber 16's circular or cylindrical construction. No rectangular front-portion teachings are disclosed by Stewart et al.

Again, neither Vanzant nor Stewart et al. provide teachings directed to a rectangular front portion of a one-piece inflatable bladder.

Trapezoidal Side Panels

In light of Applicant's earlier-presented visual comparison of Vanzant's non-trapezoidal side panels versus the exemplary trapezoidal side panel, Vanzant does not teach trapezoidal side panels. Likewise, Stewart et al. also fails to teach trapezoidal side panels because Stewart et al.'s Fig. 2 only teaches curved "sides" of inflatable air chamber 16. Stewart et al. therefore fails to provide teachings directed to trapezoidal side panels.

Because neither Vanzant nor Stewart et al. teach a trapezoidal side panel, the combination of Vanzant and Stewart et al. will not yield the claimed, "first and second trapezoidal shaped side panels operatively connecting the front and rear portions."

One-piece Inflatable Bladder

Neither Vanzant nor Stewart et al. teach an inflatable bladder having all of the structural limitations claimed by the Applicant. Specifically, neither Vanzant nor Stewart et al. teach:

A one-piece inflatable bladder positioned on the base comprising:

a front portion, wherein the front portion is constructed to be rectangular;

a rear portion, wherein the rear portion is constructed to be rectangular and

wherein the height of the rear portion on full inflation of the inflatable bladder is at least three times the height of the front portion;

first and second trapezoidal shaped side panels operatively connecting the front and rear portions;

Therefore, because neither Vanzant nor Stewart et al. teach the claimed one-piece inflatable bladder, the combination of these two references cannot arrive at the claimed invention as a whole.

Position of Inflation and Deflation Valve

Additionally, neither Vanzant nor Stewart et al. teach a valve for inflation and deflation of the bladder as claimed by the Applicant, "*the valve operatively connected to one of the first and second side panels of the bladder.*" To rebut the Office Action finding that such a valve teaching is present in Vanzant, Applicant points out and respectfully requests that the Examiner carefully study Vanzant's Fig. 2, 5a-5b, and 6a-6d in order to accurately determine the position of air inlet 18 and external manifold 62 relative to Vanzant's disclosed side panel portions. Applicant appreciates that Vanzant's Fig. 1, 3, and 4 provide the same teaching that Applicant is referring to, but these Figures do not provide the relatively best angle for the comparison.

In none of Vanzant's Figs. 2, Fig. 5a-5b, or 6a-6d is air inlet 18 or external manifold 62 operatively connected to one of the first and second side panels of the bladder. Instead, both air inlet 18 and external manifold 62 are positioned either beneath or under the side panel(s) and bladder. It appears that air inlet 18 and external manifold 62 allows air to enter the bladder via the bladder's underside or bottom; air does not enter or exit not through a valve operatively attached to a side panel(s).

Additionally, Stewart et al. only appears to provide teachings directed to air intake/exit valves located above inflatable air chamber 16.

Therefore, neither Vanzant nor Stewart et al. teach, "a valve for inflation and deflation of the bladder, the valve operatively connected to one of the first and second side panels of the bladder."

Claimed Location of Compartment

Vanzant fails to disclose either a compartment or the location of a compartment.

Stewart et al. does not teach a compartment or the location of a compartment. In the Office Action paragraph that bridges between page 2 page 3, the Office Action alleges that Stewart et al., "shows . . . a compartment (see Fig. 5) located near a side panel of the bladder," But upon studying figure 5, no compartment is disclosed. What is actually taught is that there are only two elements disclosed as being near inflatable air chamber 16. These two elements are

electronic air compressor 18 and battery 19. Nothing in the cited Stewart et al. teachings are directed to a compartment.

And because there are no compartment teachings, there are also no teachings directed to, "a compartment located at one of the first and second sides of the bladder and operatively connected to the base;" as claimed by the Applicant.

Still further, if Stewart et al.'s inflatable air chamber 16 is only disclosed as being circular, then mathematically it can only have a single side. Because inflatable air chamber 16 only has one side, then it is impossible for Stewart et al. to teach, "a compartment located at one of the first and second sides of the bladder," as claimed by Applicant. Inflatable air chamber 16 only has one side; not two.

Rear Portion at least 7 Inches Higher Than the Front Portion

With respect to the rejection directed to claims 3 and 8, because it would allegedly be obvious to modify the height of the rear portion to be at least 7 inches higher than the front portion at full inflation, Applicant disagrees because both Vanzant and Stewart et al. would be non-functional or impractical if either of their rear portions are: i) at least 7 inches higher than their respective front portions (as required by claims 3 and 8), and ii) the rear portion heights are at least three times the height of the front portion (as required by independent claims 1 and 6).

When the claim limitations of claims 3 and 8 are properly read in light of the "rear-portion" to "front-portion" height ratios imposed by their respective independent claims (i.e., 1 and 6 respectively), the front-portion height can only range from 0 to 3.5 inches, and the rear-portion height can only range from 7 to 10.5 inches. Because of the inherent height limitations imposed by these ranges, neither of the Vanzant nor Stewart et al. disclosed compositions would be functional or practical.

Here is how the Applicant mathematically calculated the above-mentioned height ranges for both the front and rear portions of the claimed inflatable bladder:

H_F = height of inflated bladder's front portion

H_R = height of inflated bladder's rear portion

Independent Claims 1 and 6 require the rear portion to be "at least three times the height of the front portion"; or $H_R \geq 3H_F$

Dependent Claims 3 and 8 require the rear portion to be "approximately 7 inches higher than the front portion at full inflation"; or $H_R \approx H_F + 7"$

For both of these limitations to be true,

$$H_F + 7" \geq 3H_F$$

$$7" \geq 3H_F - H_F$$

$$7" \geq H_F (3-1)$$

$$7" \geq H_F 2$$

$$3.5" \geq H_F$$

So in order to satisfy the above claim limitations, H_F must be less than or equal to 3.5 inches; or H_F ranges from 0 to 3.5 inches. Consequently, H_R therefore ranges from 7 to 10.5 inches.

Based upon Stewart et al.'s disclosed height/length ratios shown in any of its figures, it appears that *circular* inflatable air chamber 16, at full inflation, does not satisfy the claim limitations of claims 3 and 8. With Applicant's above mathematical proof in mind, consider the following example. If, in Stewart et al.'s Fig. 1, the front portion of inflatable air chamber 16 has a height of 3.5 inches (at full inflation), then assuming that 3.5 inch front-portion height, Stewart et al. does not teach the corresponding rear portion of inflatable air chamber 16 as being 7 inches higher. To be 7 inches higher, the back portion of inflatable air chamber 16 would have to have a height ratio of three times the height of the front portion, and it is clear that Stewart et al. provides no such teaching. When this height-ratio analysis is applied to any of Stewart et al.'s Fig. teachings, it is mathematically impossible for any of Stewart et al.'s embodiments to have a rear portion that is 7 inches (or three times) higher than its corresponding front portion.

Furthermore, because it is mathematically impossible for Stewart et al. (based upon its disclosed teachings) to have a functional embodiment wherein the back portion of inflatable air chamber 16 is seven inches higher than its corresponding front portion, it would not be obvious to a person of ordinary skill in the art to attempt such a modification. In fact, because it is mathematically impossible, based upon Stewart et al.'s teachings, to arrive at a fully inflated air chamber 16 that meets Applicant's claim limitations present in claims 3 and 8; it appears that Stewart et al. teaches away from such a modification.

A height-ratio analysis of Vanzant's teachings shows that a person of ordinary skill in the art would not be motivated to modify Vanzant's teachings to satisfy the claim limitations of claims 3 and 8 because if claims 3 and 8 provide for a mathematically maximum rear-portion height of 10.5 inches, then it appears that both the chair back and the inflatable bladder rear portion as shown in Fig. 1 could only be about 10.5 inches high. To underscore the absurdity of why it would not be obvious to a person having ordinary skill in the art to modify Vanzant's teachings as shown in Fig. 1, if Vanzant's sit/stand device 10 had a rear portion height of 10.5 inches, then in order to have any utility (e.g., to a person represented by the phantom lines in Fig. 1), a person using the sit/stand device 10 could never have a height greater than about 30 inches. The approximate ratio between the proportional heights of the rear portion and the phantom person force this conclusion. Stated differently, based upon Vanzant's teachings in Fig. 1, if Vanzant's sit/stand device 10 had a rear portion with a maximum height of 10.5 inches, it would only have utility for users having a height of less than 2 1/2 or 3 feet because Vanzant's disclosed design would only allow for use by such a person. In light of the claimed height limitations, the Office Action's proposed height modifications to Vanzant or Stewart et al.'s teachings would not be obvious to a person having ordinary skill in the art.

The Three-Reference Combination of Vanzant, Stewart et al., and Chow

First, the combination of Vanzant and Stewart et al. is not, "basically the same" as Applicant's claimed invention. Arguments evidencing this position have been presented above.

Second, in addition to Applicant's above arguments directed to the failure of either Vanzant or Stewart et al. to provide any motivation for their combination, Applicant further

argues that Chow's *therapeutic sling seat* fails to provide any motivation for its teachings to be combined with either Vanzant's or Stewart et al.'s *pneumatic sit/stand assistance compositions* because compared to Vanzant or Stewart et al.'s pneumatic sit/stand assistance compositions, Chow's therapeutic sling seat is from a completely different field of art. A therapeutic sling seat is unrelated to a pneumatic device for assisting a person to reach either a sitting or standing position.

Third, the Office Action alleges that, "Chow shows a seat apparatus similar to that of Vanzant wherein a cover 268 (Fig. 14a) has a removable connecting means and contains material to minimize slippage." This allegation is incorrect for *at least* the following reasons:

1) Chow does not show a seat apparatus that is similar to that of Vanzant. Chow teaches a therapeutic sling seat, but Vanzant teaches a pneumatic sit/stand assistance device utilizing sequential inflation for stabilizing effects. The teachings are directed to distinct fields of technology and have completely different purposes.

2) The Office Action has cited, "cover 268," against Applicant's claims, but Chow's element identified by 268 is not a cover. Instead, Chow teaches that its element identified by 268 is a front flap.

3) Chow teaches that it is not front flap 268 that provides protection from debris or soiling. Instead, Chow teaches that cushion bag 260 serves that purpose.

4) Chow's cushion bag 260 would not be useful with Vanzant's compositions because not only would cushion bag 260 not fit Vanzant's compositions, but cushion bag 260 is not taught as being capable of expansion so as to accommodate any of Vanzant's disclosed inflated compositional embodiments.

Conclusion

In light of Applicant's above arguments, none of the three cited references nor any of their combinations makes any of Applicant's claimed compositions obvious. Applicant requests that a notice of allowance be issued for all of the pending claims.

Respectfully submitted,

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7/13/07

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